

Mr. Tom Hanlon
Northern Indiana Packaging
1200 Riverfolk Drive East
Huntington, Indiana 46750

Dear Mr. Hanlon:

Re: Exempt Operation Status,
069-14230-00064

The application from Northern Indiana Packaging, received on April 4, 2001 has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following equipment used in the manufacture of custom packaging containers for the automotive industry and other industries located at 1200 Riverfolk Drive East, Huntington, Indiana 46750 is classified as exempt from air pollution permit requirements:

- (a) Two (2) bandsaws, identified as BS-1, and BS-2, and one porter saw, identified as PS-1, used to trim and cut notches in packaging foam. Trim scrap and Particulate Matter are ducted to baghouse BH-2. Each saw has a capacity of 2.64 pounds per hour;
- (b) One (1) rotary die-cutter, identified as DC-1, one (1) hooper press, identified as P-1, and one F & E press, identified as P-2, which are used for paperboard cutting and trimming. The two (2) presses are a combination of letterpress printers and slotter units. Each machine has a capacity of 146.8 pounds of scraps per hour. Baghouse BH-1 will be installed that will consists of a separator, air lock valve and after filter.
- (c) Adhesive application, which has a maximum potential capacity of 20 gallons per day, where foam is glued to the paperboard with hot melt and water soluble adhesives;
- (d) Printing operation, which includes one (1) hooper press, identified as P-1 with a maximum line speed of 80.8 feet per minute and a printing width of 60 inches; and one F & E press, identified as P-2 with a maximum line speed of 38.7 feet per minute and a printing width of 37 inches. These presses are used to print small labels;
- (e) Two (2) natural gas-fired space heaters with a combined heat input of 1.6 million British thermal Units per hour (mmBtu/hr);
- (f) Parts washing/degreasing operation used in maintenance activity with a capacity of less than 145 gallons per 12 month; and
- (g) Welding, grinding, sanding and abrasive cleaning used for maintenance activities.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- (2) Pursuant to 326 IAC 8-3 (Degreasing Operation)
The owner or operator of the parts washing/degreasing operation shall comply with the following requirements:
- (a) equip the cleaner with a cover;
 - (b) equip the cleaner with a facility for draining cleaned parts;
 - (c) close the degreaser cover whenever parts are not being handled in the cleaner;
 - (d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
 - (e) provide a permanent, conspicuous label summarizing the operating requirements;
 - (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.
- (3) Pursuant to 326 IAC 6-3 (PM Emissions Limit for Process Operations), the PM emission limits on the paperboard cutting/trimming, foam cutting and welding, grinding, sanding and abrasive cleaning shall be limited as follows:

(a)

Operation/Facility	Process Weight Rate (ton/hr)	PM Emissions Limit (lbs/hr)
Paperboard Cutting/Trimming	0.0734	0.71 lb/hour
Foam Cutting	0.00132	0.048 lb/hour

The above PM emission limits shall be determined by the following equation:

$$E = 4.10 P^{0.67}$$

Where:

E = PM emission limit in pounds per hour

P = Process weight rate in tons per hour

- (b) The PM emissions limit from the welding, grinding, sanding and abrasive cleaning used for maintenance activities shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

APD

cc: File - Huntington County
Huntington County Health Department
Air Compliance - Ryan Hillman
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name: Northern Indiana Packaging
Source Location: 1200 Riverfolk Drive East, Huntington, Indiana 46750
County: Huntington
SIC Code: (2653)
Operation Permit No.: 069-14230-00064
Permit Reviewer: Aida De Guzman

The Office of Air Quality (OAQ) has reviewed an application from Northern Indiana Packaging relating to the operation of the following equipment used in the manufacture of custom packaging containers for the automotive industry and other industries:

- (a) Two (2) bandsaws, identified as BS-1, and BS-2, and one porter saw, identified as PS-1, used to trim and cut notches in packaging foam. Trim scrap and Particulate Matter are ducted to baghouse BH-2. Each saw has a capacity of 2.64 pounds per hour;
- (b) One (1) rotary die-cutter, identified as DC-1, one (1) hooper press, identified as P-1, and one F & E press, identified as P-2, which are used for paperboard cutting and trimming. The two (2) presses are a combination of letterpress printers and slotter units. Each machine has a capacity of 146.8 pounds of scraps per hour. Baghouse BH-1 will be installed that will consists of a separator, air lock valve and after filter.
- (c) Adhesive application, which has a maximum potential capacity of 20 gallons per day, where foam is glued to the paperboard with hot melt and water soluble adhesives;
- (d) Printing operation, which includes one (1) hooper press, identified as P-1 with a maximum line speed of 80.8 feet per minute and a printing width of 60 inches; and one F & E press, identified as P-2 with a maximum line speed of 38.7 feet per minute and a printing width of 37 inches. These presses are used to print small labels;
- (e) Two (2) natural gas-fired space heaters with a combined heat input of 1.6 million British thermal Units per hour (mmBtu/hr);
- (f) Parts washing/degreasing operation used in maintenance activity with a capacity of less than 145 gallons per 12 month; and
- (g) Welding, grinding, sanding and abrasive cleaning used for maintenance activities.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
No stacks through roof					

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 4, 2001, with additional information requested in the NOD1 was received via e-mail on April 30, 2001.

Emission Calculations

- (a) Printing Emissions: See Pages 1 through 4 of 5 TSD Appendix A for detailed calculations.

- (b) Paperboard Cutting and Trimming Emissions:

Actual total (3 machines) scrap collected
for the last 12 months @ 5,331 hrs = 782,600 lbs

Scrap collected based on 8760 hrs/yr = $782,600 \text{ lb} \times \frac{8760 \text{ hrs/yr}}{5331 \text{ hrs/yr}} \times \text{ton}/2000 \text{ lb}$
= 643 tons/yr

99.5% of the material collected by the Separator is scrap and the remaining 0.5% is particulate matter.

Uncontrolled PM Emissions = $643 \text{ tons/yr} / 0.995$
= $646 \text{ tons/yr} \times 0.5\%$
= 3.23 tons/yr

Filter control efficiency = 99.9%
Controlled PM Emissions = $3.23 \text{ tons/yr} \times (1 - 0.999)$
= 0.0

- (c) Foam Cutting Emissions:

Actual total (3 machines) scrap collected
for the last 12 months @ 5,331 hrs = 12,480 lbs

Scrap collected based on 8760 hrs/yr = $12,480 \text{ lb/yr} \times \frac{8760 \text{ hrs/yr}}{5331 \text{ hrs/yr}} \times \text{ton}/2000 \text{ lb}$
= 10.25 tons/yr

90 % of the material collected is scrap and the remaining 10 % is particulate matter.

Uncontrolled PM Emissions = $10.25 \text{ tons/yr} / 0.90$

$$= 11.4 \text{ tons/yr} * 10 \%$$

$$= 1.13 \text{ tons/yr}$$

Afterfilter (baghouse) control efficiency = 99.9%

Controlled PM/PM10 Emissions = 1.13 tons/yr * (1-.999)

$$= 0.0$$

(d) Adhesive Application Emissions:

The hot melt adhesives, HM09A and HM09C and Dextrine adhesive, D1558 used by the source do not contain VOC nor HAP. The Resin Adhesive, R30315 is the only one that contains VOC at negligible amount (see below calculations).

VOC Emissions = 100 gal/yr * $\frac{8760 \text{ hrs/yr}}{120 \text{ hrs/yr}}$ * 9.2 lb/gal

$$* 0.007\% \text{ VOC} * \text{ton}/2000 \text{ lb}$$

$$= 0.0024 \text{ ton/yr}$$

SUMMARY OF EMISSIONS (TONS/YEAR)						
Pollutant	Printing	Paper Cutting & Trimming	Foam Cutting	Adhesive Application	Natural Gas Combustion	TOTAL Emissions
PM	0.0	3.23	1.13	0.0	0.01	4.37
PM10	0.0	3.23	1.13	0.0	0.05	4.41
VOC	2.5	0.0	0.0	0.0	0.04	2.54
NOx	0.0	0.0	0.0	0.0	0.70	0.7
SO2	0.0	0.0	0.0	0.0	0.00	0.0
CO	0.0	0.0	0.0	0.0	0.60	0.6
HAPs	1.95	0.0	0.0	0.0	0.0	1.95

Note: The controlled PM and PM10 emission from the paper and foam cutting is zero.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	4.37
PM-10	4.41
SO ₂	0.0
VOC	2.54
CO	0.6
NO _x	0.7

HAP's	Potential To Emit (tons/year)
Ethylene Glycol	1.64
Glycol Ethers	0.311
TOTAL	1.95

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of Particulate Matter or Particulate Matter Less Than Ten Microns are less than 5 tons per year or the other criteria pollutants except CO are each less than 10 tons per year. Pursuant to 326 IAC 2-1.1-3, the source is exempt from the registration or permitting requirements.

Source Status

Existing (first time permitted) source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity):

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Natural Gas Combustion	0.01	0.05	0.0	0.04	0.60	0.70	0.0
Printing	0.0	0.0	0.0	2.5	0.0	0.0	1.95
Paper Cutting & Trimming	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foam Cutting	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adhesive Application	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Emissions	0.01	0.05	0.0	2.54	0.60	0.70	1.95

- (a) This existing first time permitted source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

County Attainment Status

The source is located in Huntington County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	not determined

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Huntington County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

- (b) Huntington County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing first time permitted source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
 - (1) 40 CFR Part 60.430, Subpart QQ-Standards of Performance for the Graphic Arts Industry:
This NSPS applies to each Publication Rotogravure Printing Press that commences construction after October 28, 1980.

Presses (hopper press P-1, and F & E press P-2) are not subject to this NSPS, because they are not publication rotogravure printing presses. They are used in label printing of the manufactured packaging materials, and they don't emit any VOC.
- (b) There are no other New Source Performance Standards (NSPS) that will apply to the source that manufactures packaging materials.
- (c) National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63)
 - (1) 40 CFR Part 63.460, Subpart T - National Emission Standards for Halogenated Solvent Cleaning. The parts washer/degreaser, which is an insignificant activity is not subject to this NESHAP because it does not use any of the halogenated solvents listed in the rule.
 - (2) 40 CFR 63.820, Subpart KK - National Emission Standards for the Printing and Publishing Industry:
This NESHAP applies to each new and existing facility that is a major source of hazardous air pollutants (HAP), at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated.

Presses (hopper press P-1, and F & E press P-2) are not subject to this NESHAP, because they are not publication rotogravure, product and packaging rotogravure, nor wide-web flexographic printing presses, and they do not emit HAPs at major levels.
 - (3) There are no other NESHAPs applicable to this source.

State Rule Applicability -

(a) 326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

(b) 326 IAC 8-5-5 (Graphic Arts Operations) - This rule applies to packaging rotogravure, publication rotogravure, and flexographic printing sources of which construction commences after November 1, 1980, located anywhere in the state, with potential emissions of twenty-five (25) tons per year or more volatile organic compounds (VOC).

Presses (hopper press P-1, and F & E press P-2) are not subject to 326 IAC 8-5-5, because it is not a packaging rotogravure, publication rotogravure, nor a flexographic printing source. They also do not emit any VOC.

(c) 326 IAC 8-3 (Degreasing Operation)

The parts washing/degreasing operation that is an insignificant activity was installed after January 1, 1980, and is a cold degreaser since it is maintained below the boiling point of the solvent. Therefore, the degreaser is subject to 326 IAC 8-3-2. The source shall comply with the following requirements:

- (1) equip the cleaner with a cover;
- (2) equip the cleaner with a facility for draining cleaned parts;
- (3) close the degreaser cover whenever parts are not being handled in the cleaner;
- (4) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (5) provide a permanent, conspicuous label summarizing the operating requirements;
- (6) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

(d) 326 IAC 2-4.1-1 (New Source Toxics Control)

This rule is not applicable to the source, because it is not a major source for hazardous air pollutant, and the source was constructed prior to July 27, 1997, the promulgation of the rule.

(e) 326 IAC 6-3 (PM Emissions Limit for Process Operations)

This rule mandates PM emission limits on the paperboard cutting/trimming, foam cutting and Welding, grinding, sanding and abrasive cleaning used for maintenance activities using the following equation:

$$E = 4.10 P^{0.67}$$

Where:

E = PM emission limit in pounds per hour
P = Process weight rate in tons per hour

(1) Paperboard Cutting/Trimming:

P = 146.8 lbs/hr
= 0.0734

E = $4.10 (0.0734)^{0.67}$
= 0.71 lb/hour

The paperboard cutting/trimming operation is in compliance with the rule using filter (baghouse) to control PM emissions.

(2) Foam Cutting:

P = 2.64 lbs/hr
= 0.00132

E = $4.10 (0.00132)^{0.67}$
= 0.048 lb/hour

The foam cutting operation is in compliance with the rule using filter (baghouse) to control PM emissions.

(3) Welding, grinding, sanding and abrasive cleaning used for maintenance activities: The particulate matter (PM) from these insignificant activities shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

(f) 326 IAC 6-2-4 (PM Emission Limit for Indirect Sources)

This rule is not applicable to the two (2) natural gas-fired space heaters because they are not sources of indirect heating.

Conclusion

The operation of this source that manufactures custom packaging containers for the automotive industry and other industries shall be subject to the conditions of the attached
Exemption 069-14230-00064.

Appendix A: Emissions Calculations

Page 1 of 5 TSD App A

VOC From Printing Press Operations**Company Name:** Northern Indiana Packaging, Inc.**Address City IN Zip:** 1200 Riverfolk Dr. East, Huntington, IN 46750**Registration:** "069-14230-00064**Reviewer:** Aida De Guzman**Date Application Received:** April 4, 2001

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN)	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
Hopper Press P-1	80.8	60	30577

INK VOCS					
Ink Name Press Id	Maxium Coverage '(lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
SF DQ PMS 221U Maroon Claywhite	0.266	24%	100.00%	30577	0.99
Ethylene Glycol	0.0495	100%	100.00%	30577	0.76

Total VOC Emissions =	1.75 Ton/yr
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*VOC (Tons/Year) = Maximum Coverage pounds per MMin^2 * Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) * Flash off * Throughput * 1 Ton per 2000 pounds

METHODOLOGY

Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin^2 per Year

VOC = Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

Appendix A: Emissions Calculations

Page 2 of 5 TSD App A

VOC From Printing Press Operations

Company Name: Northern Indiana Packaging, Inc.

Address City IN Zip: 1200 Riverfolk Dr. East, Huntington, IN 46750

Registration: "069-14230-00064

Reviewer: Aida De Guzman

Date Application Received: April 4, 2001

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN)	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
F & E Press (P-2)	38.7	37	9031

INK VOCS					
Ink Name Press Id	Maxium Coverage '(lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
SF DQ PMS 221U Maroon Claywhite	0.491	24%	100.00%	9031	0.54
Ethylene Glycol	0.0495	100%	100.00%	9031	0.22

Total VOC Emissions =	0.76 Ton/yr
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*VOC (Tons/Year) = Maximum Coverage pounds per MMin^2 * Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) * Flash off * Throughput * 1 Ton per 2000 pounds

METHODOLOGY

Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin^2 per Year

VOC = Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

Appendix A: Emissions Calculations
VOC From Printing Press Operations

Company Name: Northern Indiana Packaging, Inc.
Address City IN Zip: 1200 Riverfolk Dr. East, Huntington, IN 46750
Registration: "069-14230-00064
Reviewer: Aida De Guzman
Date Application Received: April 4, 2001

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN)	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
F & E	38.70000000000001	37	9031

INK VOCS							
Ink Name Press Id	Maximum Coverage '(lbs/MMin^2)	Glycol Ethers % HAP	Ethylene Glycol % HAP	Flash Off %	Throughput (MMin^2/Year)	Glycol Ethers (tons/yr)	Ethylene Glycol tons/yr
SS GCM1 90 Black	0.491	4.999%	0%	100.00%	9031	0.111	0.00
SS DQ PMS 342U Green Mottle	0.491	4.999%	4.999%	100.00%	9031	0.111	0.11
SS PMS 300 Blue	0.491	4.999%	10%	100.00%	9031	0.111	0.22
SF DQ PMS 343U Green Mottle	0.491	4.999%	4.999%	100.00%	9031	0.111	0.11
SS GCM1 31 blue Kraft	0.491	4.999%	4.999%	100.00%	9031	0.111	0.11
SS GCM175 Red	0.491	4.999%	10%	100.00%	9031	0.111	0.22
SS GCM1 21 Green Kraft	0.491	4.999%	4.999%	100.00%	9031	0.111	0.11
SS GCM1 74 Red Kraft	0.491	4.999%	4.999%	100.00%	9031	0.111	0.11
SS GCM1 32 Blue	0.491	4.999%	4.999%	100.00%	9031	0.111	0.11
SS DQ PMS 1795U Blue Mottle	0.491	4.999%	4.999%	100.00%	9031	0.111	0.11
SSDQ PMS 2995U Blue Mottle	0.491	4.999%	4.999%	100.00%	9031	0.111	0.11
SF DQ PMS 221U Maroon Claywhite	0.491	4.999%	4.999%	100.00%	9031	0.111	0.11
SF DQ PMS 221U Maroon Claywhite	0.491	4.999%	10%	100.00%	9031	0.111	0.22
Ethylene Glycol Facilitator	0.0495	0.00%	100%	100.00%	9031	0.0	0.22

Total VOC Emissions =

0.111

0.44 Ton/yr

*HAP (Tons/Year) = Maximum Coverage pounds per MMin^2 * We weight % HAP * flash off * throughput * ton/2000 lb

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin^2 per Year

VOC = Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

Appendix A: Emissions Calculations
VOC From Printing Press Operations

Page 4 of 5 TSD App A

Company Name: Northern Indiana Packaging, Inc.
Address City IN Zip: 1200 Riverfolk Dr. East, Huntington, IN 46750
Registration: "069-14230-00064
Reviewer: Aida De Guzman
Date Application Received: April 4, 2001

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN)	MAXIMUM PRINT	MMin^2/YEAR
		WIDTH (INCHES)	
Hopper	80.8	60	30577

INK VOCS							
Ink Name	Maximum Coverage	Glycol Ethers % HAP	Ethylene Glycol % HAP	Flash Off %	Throughput	Glycol Ethers	Ethylene Glycol
Press Id	'(lbs/MMin^2)				(MMin^2/Year)	(tons/yr)	tons/yr
SS GCM1 90 Black	0.266	4.999%	0%	100.00%	30577	0.2033	0.00
SS DQ PMS 342U Green Mottle	0.266	4.999%	4.999%	100.00%	30577	0.2033	0.20
SS PMS 300 Blue	0.266	4.999%	10%	100.00%	30577	0.2033	0.41
SF DQ PMS 343U Green Mottle	0.266	4.999%	4.999%	100.00%	30577	0.2033	0.20
SS GCM1 31 blue Kraft	0.266	4.999%	4.999%	100.00%	30577	0.2033	0.20
SS GCM175 Red	0.266	4.999%	10%	100.00%	30577	0.2033	0.41
SS GCM1 21 Green Kraft	0.266	4.999%	4.999%	100.00%	30577	0.2033	0.20
SS GCM1 74 Red Kraft	0.266	4.999%	4.999%	100.00%	30577	0.2033	0.20
SS GCM1 32 Blue	0.266	4.999%	4.999%	100.00%	30577	0.2033	0.20
SS DQ PMS 1795U Blue Mottle	0.266	4.999%	4.999%	100.00%	30577	0.2033	0.20
SSDQ PMS 2995U Blue Mottle	0.266	4.999%	4.999%	100.00%	30577	0.2033	0.20
SF DQ PMS 221U Maroon Claywhite	0.266	4.999%	4.999%	100.00%	30577	0.2033	0.20
SF DQ PMS 221U Maroon Claywhite	0.266	4.999%	10%	100.00%	30577	0.2033	0.41
Ethylene Glycol Facilitator	0.0495	0.00%	100%	100.00%	30577	0.0	0.76

Total VOC Emissions =

0.2 1.2 Ton/yr

*HAP (Tons/Year) = Maximum Coverage pounds per MMin^2 * We weight % HAP * flash off * throughput * ton/2000 lb

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin^2 per Year

VOC = Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

Appendix A: Emissions Calculations

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Natural Gas Combustion Only**MM BTU/HR <100****Small Industrial Boiler****Company Name:** Northern Indiana Packaging, Inc.**Address City IN Zip:** 1200 Riverfolk Dr. East, Huntington, IN 46750**CP:** "069-14230-00064**Reviewer:** Aida De Guzman**Date Application Received:** April 4, 2001Heat Input Capacity
MMBtu/hrPotential Throughput
MMCF/yr

1.6

14.0

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.01	0.05	0.00	**see below	0.04	0.59

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
(SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).